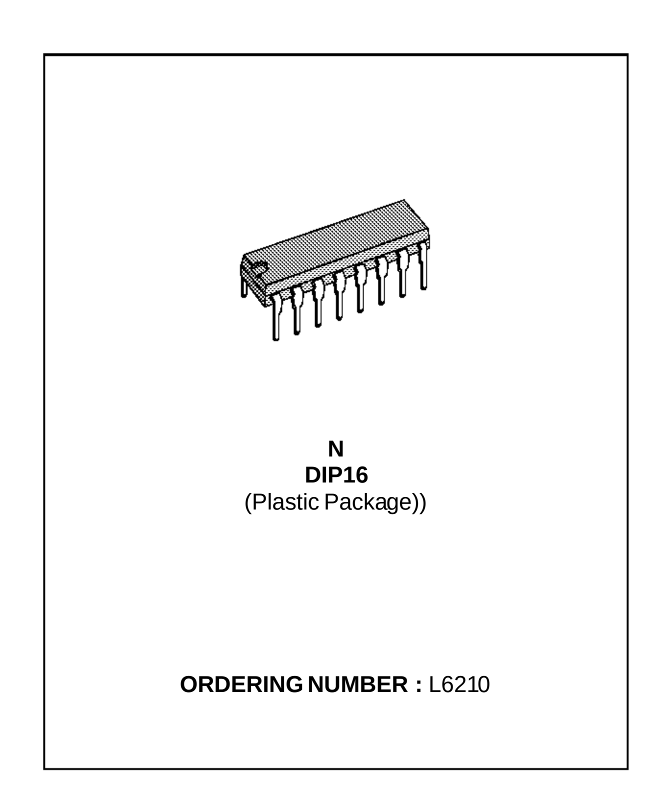


L6210

DUAL SCHOTTKY DIODE BRIDGE

- MONOLITHIC ARRAY OF EIGHT SCHOTTKY DIODES
- HIGH EFFICIENCY
- 4A PEAK CURRENT
- LOW FORWARD VOLTAGE
- FAST RECOVERY TIME
- TWO SEPARATED DIODE BRIDGES



DESCRIPTION

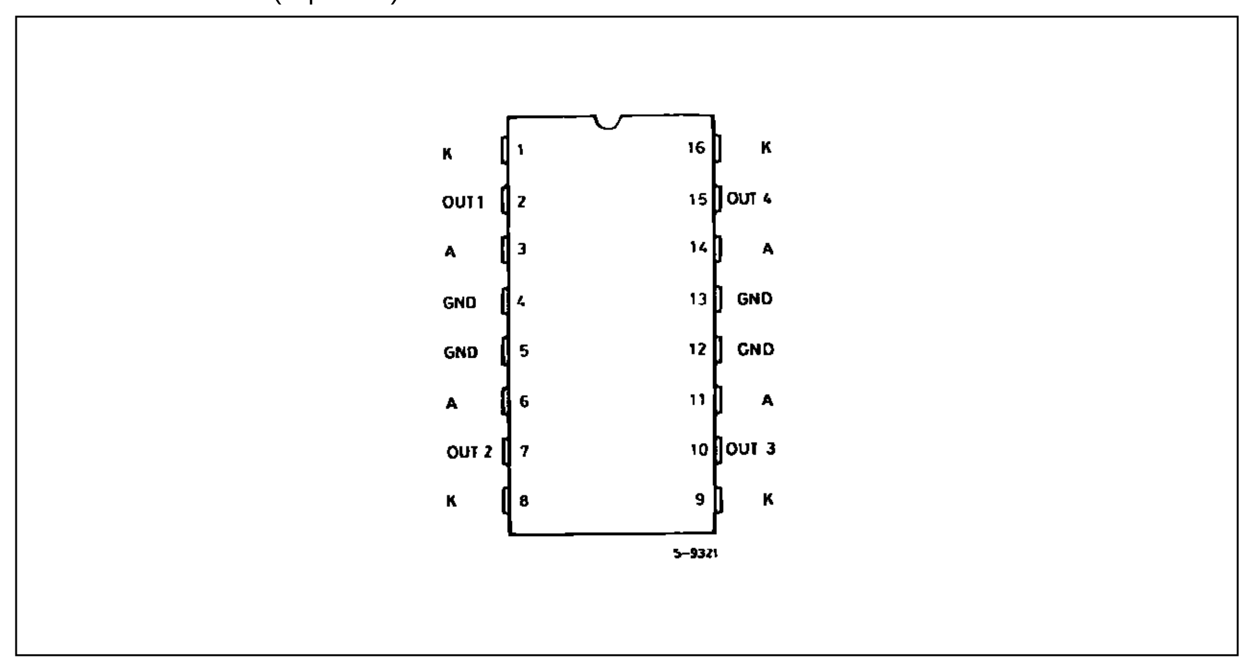
The L6210 is a monolithic IC containing eight Schottky diodes arranged as two separated diode bridges.

This diodes connection makes this device versatile in many applications.

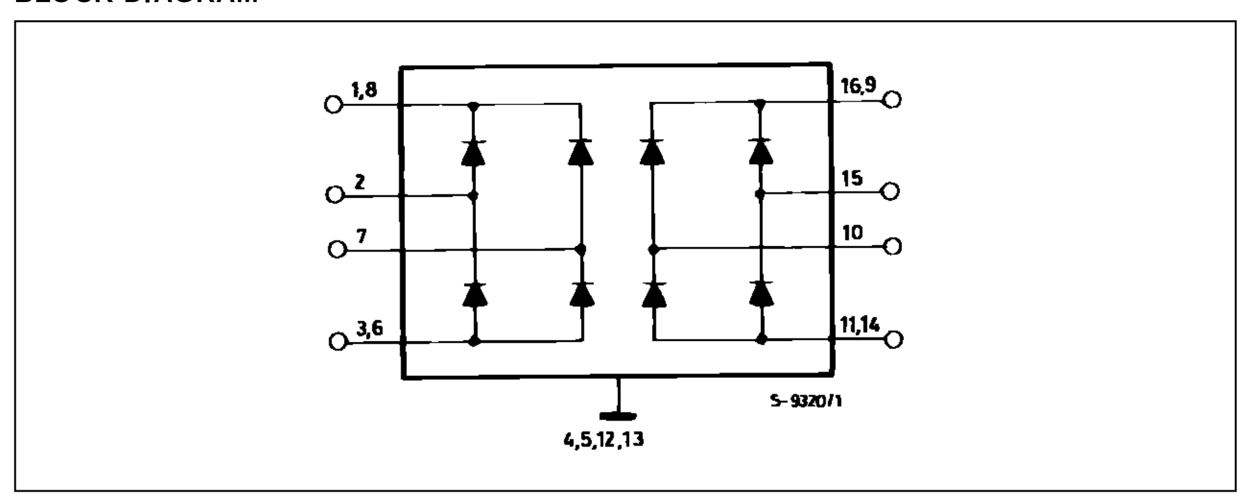
They are used particular in bipolar stepper motor applications, where high efficient operation, due to low forward voltage drop and fast reverse recovery time, are required.

The L6210 is available in a 16 Pin Powerdip Package (12 + 2 + 2) designed for the 0 to 70xC ambient temperature range.

PIN CONNECTION (top view)



BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
I_f	Repetitive Forward Current Peak	2	A
V_r	Peak Reverse Voltage (per diode)	50	V
T_{amb}	Operating Ambient Temperature	70	^oC
T_{stg}	Storage Temperature Range	–55 to +150	^oC

THERMAL DATA

Symbol	Parameter		Value	Unit
$R_{th\ j\text{-}case}$	Thermal Impedance Junction-case	Max.	14	$^oC/W$
$R_{th\ j\text{-}amb}$	Thermal Impedance Junction-ambient without External Heatsink	Max.	65	$^oC/W$

ELECTRICAL CHARACTERISTICS (T_j = 25^{o}C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
V_f	Forward Voltage Drop	I_f = 100 mA		0.65	0.8	
		i_f = 500 mA		0.8	1	V
		I_f = 1 A		1	1.2	
I_L	Leakage Current	V_R = 40 V, T_{amb} = 25^{o}C			1	mA

Note : At forward currents of greater than 1A, a parasitic current of approximately 10mA may be collected by adiacent diodes.



Figure 1 : Reverse Current verus Voltage

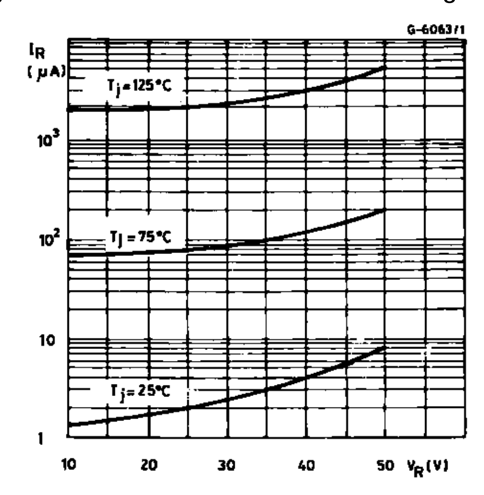
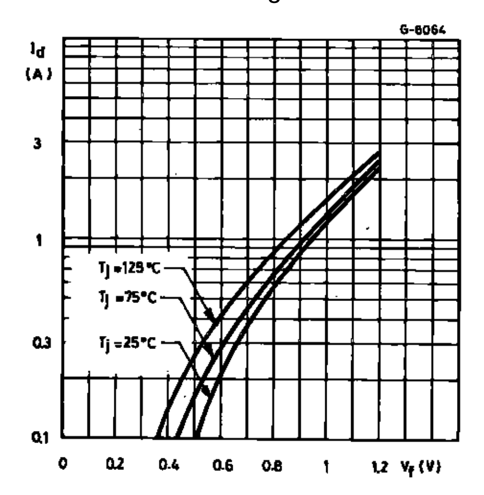


Figure 2 : Forward Voltage versus Current



MOUNTING INSTRUCTIONS

The Rth j-amb of the L6210 can be reduced by soldering the GND pins to suitable copper area of the printed circuit boards as shown in figure 3 or to an external heatsink (figure 4). During soldering the pin temperature must not exceed 260°C and the soldering time must not be longer then 12s. The external heatsink or printed circuit copper area must be connected to electrical ground.

Figure 3 : Example of P.C. Board Copper Area which is used as Heatsink

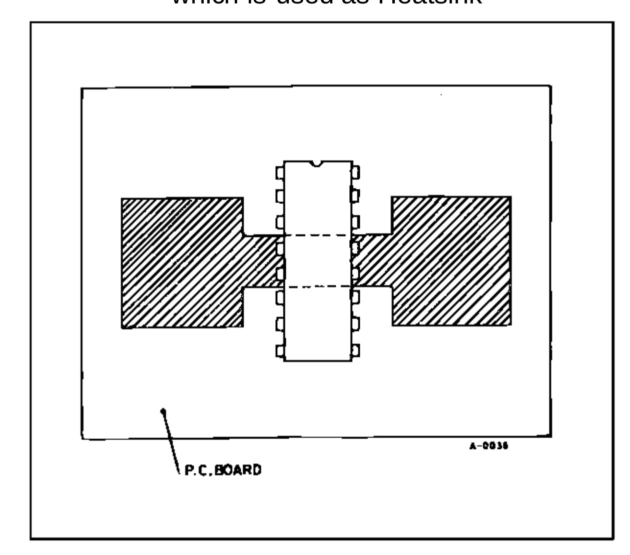
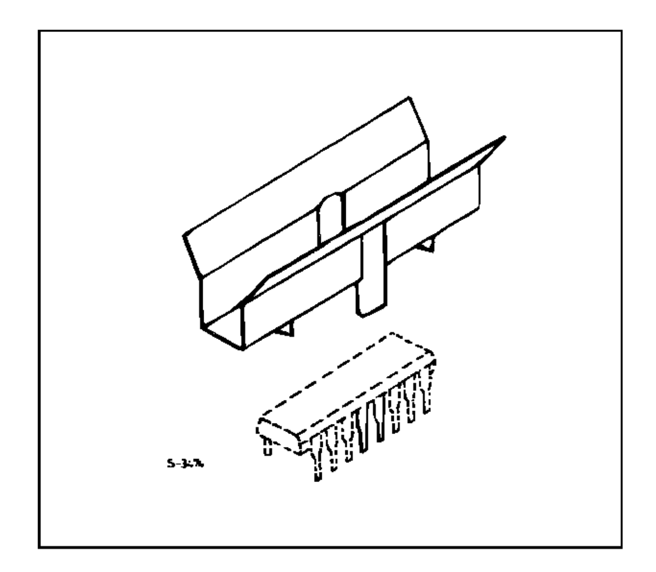


Figure 4 : Example of an External Heatsink



POWERDIP16 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
a1	0.51			0.020		
B	0.85		1.40	0.033		0.055
b		0.50			0.020	
b1	0.38		0.50	0.015		0.020
D			20.0			0.787
E		8.80			0.346	
e		2.54			0.100	
e3		17.78			0.700	
F			7.10			0.280
I			5.10			0.201
L		3.30			0.130	
Z			1.27			0.050

